Center for
Health Statistics

November
2003

DATA
SUMMARY
No.
DS03-11000

This Data Summary is one of a series of leading cause of death reports.

Highlights

- **Cancer is the second leading cause of death in California and in the United States.**
- **Of all cancer deaths in California, approximately 70 percent were among people age 65 and older.**
- **Among California residents, Whites had 72.9 percent of all cancer deaths in 2001.**
- **Among the major race/ethnic groups, Blacks had the highest age-adjusted cancer death rate (245.5 deaths per 100,000 population).**

Cancer Deaths
California, 2001

By Cheryl Wilson

Introduction

Cancer is the second leading cause of death in California and in the United States (U.S.), following heart disease.[1,2] In 2001 cancer deaths among California residents increased 1.5 percent from 53,005 deaths in 2000 to 53,810 deaths in 2001.[1,3] During this same period, cancer deaths rose .03 percent among United States residents from 553,091 deaths in 2000 to 553,251 deaths in 2001.[2,4]

Due to the prevalence of cancer deaths in this country, the U.S. Public Health Service established a health objective for Healthy People 2010 seeking to reduce the number of cancer deaths to an age-adjusted rate of no more than 159.9 per 100,000 population.[5]

This report presents data on California's cancer deaths for 2001 and provides analysis of crude and age-adjusted death rates for California residents by sex, age, and race/ethnicity. The cancer data included in this report are extracted from vital statistics records with death attributed to all cancers as defined by the International Classification of Diseases, Tenth Revision (ICD-10) codes C00-C97 in accordance with the National Center for Health Statistics Reports.[6]

Cancer Deaths

Table 1 (page 9) displays California's cancer death data by race/ethnicity, age group, and sex. In 2001 approximately 70 percent of all cancer deaths in California occurred among people aged 65 and older. California's male

---

[1] State of California, Department of Health Services, Death Records, 2001.
[2] National Center for Health Statistics, Deaths: Preliminary Data for 2001, National Vital Statistics Reports, DHHS Publication No. (PHS) 2003-1120, PRS 03-0165, March 2003.
[3] Wilson, C. Cancer Deaths, California 2000. Center for Health Statistics, State of California, Department of Health Services, September 2002.
[4] National Center for Health Statistics, Deaths: Final Data for 2000, National Vital Statistics Reports, DHHS Publication No. (PHS) 2002-1120, PRS 02-0583, September 2002.
[5] U.S. Department of Health and Human Services. Healthy People 2010 Objectives (Second Edition, in Two Volumes). Washington, D.C., January 2001.
[6] National Center for Health Statistics. Vital Statistics, Instructions for Classifying the Underlying Cause of Death. NCHS Instruction Manual, Part 9. Hyattsville, Maryland: Public Health Service, 1999.

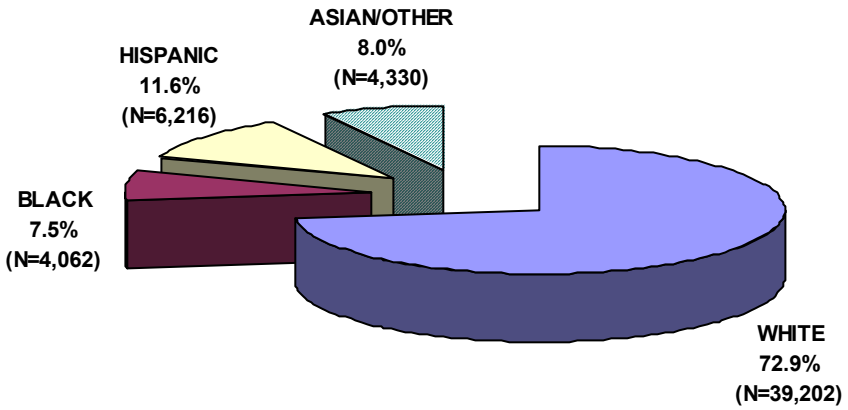
A description of methods and a brief overview of data limitations and qualifications are provided at the end of this report.

residents accounted for 50.7 percent of the total cancer deaths and females accounted for 49.3 percent. Similar to California residents overall, approximately 70 percent of all male and all female cancer deaths occurred in the age groups 65 and older.

As shown in **Figure 1** Whites had the highest percentage of cancer deaths (72.9 percent), followed by Hispanics (11.6 percent), Asian/Other (8.0 percent), and Blacks (7.5 percent).

Table 1 (page 9) shows that for each of the race/ethnic groups listed, the total number of cancer deaths was higher for males than for females.

FIGURE 1
CANCER DEATHS BY RACE/ETHNICITY*
CALIFORNIA, 2001
(N=53,810)



Source: State of California, Department of Health Services, Death Records.
***Calculated using death data for California residents.**

Cancer Crude Death Rates

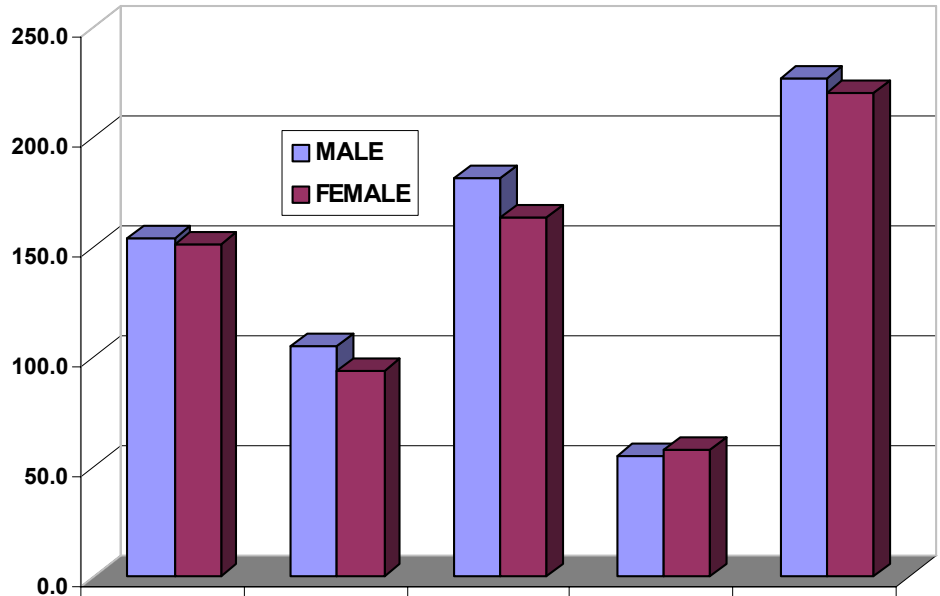
As shown in **Table 1** (page 9), California's 2001 cancer crude death rate was 152.7 per 100,000 population, a decrease of 0.2 percent from the 2000 rate of 153.0.[3] Between 2000 and 2001, the difference in crude death rates was not statistically significant.

In 2001 Whites had the highest crude death rate (224.0), followed by Blacks (172.4), Asian/Other (99.5), and Hispanics (56.4). The crude death rates for Blacks, Asian/Other, and Hispanics, but not for Whites, were higher than those reported for 2000.[3]

Figure 2 (page 3) shows California's male residents had a crude death rate of 154.0 per 100,000 population and female residents had a rate of 151.4. Among males, Whites had the highest crude death rate (227.4), followed by Blacks (181.5), Asian/Other (105.4), and Hispanics (55.2). For females, similar patterns occurred among the race/ethnic groups in that Whites had the highest crude death rate (220.6), followed by Blacks (163.5), Asian/Other (93.7), and Hispanics (57.7). The rate differences between males and females were statistically significant for Asian/Other, Blacks, and Whites, but not for Hispanics.

See the Methodological Approach Section later in this report for an explanation of crude, age-specific, and age-adjusted death rates.

FIGURE 2
CANCER CRUDE DEATH RATES BY SEX AND RACE/ETHNICITY*
CALIFORNIA, 2001



	TOTAL	ASIAN/OTHER	BLACK	HISPANIC	WHITE
MALE	154.0	105.4	181.5	55.2	227.4
FEMALE	151.4	93.7	163.5	57.7	220.6

Source: State of California, Department of Health Services, Death Records.
***Calculated using deat h data for California residents only.**

Cancer Age-Specific Death Rates

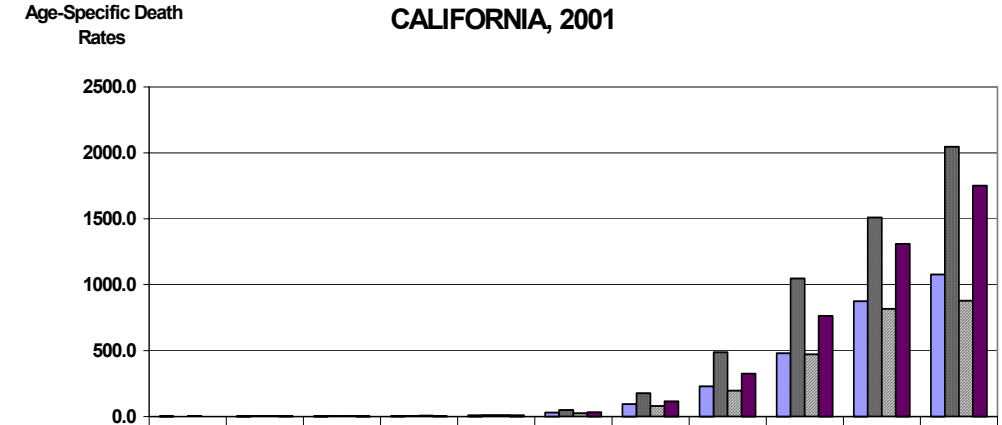
Table 1 (page 9) shows that among California residents, age-specific death rates increased with the age of the decedent beginning with the age group 5 to 14. The lowest reliable rate occurred in the 5 to 14 age group (2.7) and the highest rate occurred in the 85 and older age group (1,593.2 deaths per 100,000 population).

Among males and females in California, males had higher age-specific death rates in the 15 to 24, and 55 and older age groups, whereas females had higher rates in the 1 to 4 and 25 to 54 age groups. The lowest reliable rate (2.7) for both males and females occurred in the 5 to 14 age group.

As shown in **Figure 3** (page 4), age-specific death rates increased dramatically after age 34 for all race/ethnic groups. Among the reliable age-specific death rates, Blacks had the highest rates for all age groups 25 and older, and Whites had the next highest rates in the 35 and older age groups. Asian/Other had the lowest reliable rates in the 25 to 34 age group and Hispanics had the lowest rates in the 35 and older age groups.

See the Vital Statistics Query System (VSQ) at our Web site www.dhs.ca.gov/hisp/Applications/vsq/vsq.cfm to create your own vital statistics tables.

FIGURE 3
CANCER DEATH RATES
BY RACE/ETHNICITY AND AGE*
CALIFORNIA, 2001



	<1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
ASIAN/OTHER	1.4	2.2	2.2	3.8	9.0	30.6	93.8	228.5	481.2	875.1	1,076.2
BLACK	0.0	4.1	2.4	1.9	11.0	49.5	177.6	487.7	1,047.6	1,509.3	2,044.9
HISPANIC	2.9	3.4	3.1	6.3	10.1	25.0	80.2	197.8	472.5	816.1	877.5
WHITE	0.5	3.1	2.5	3.8	9.7	31.7	115.1	324.7	762.4	1,308.8	1,750.5

Source: State of California, Department of Health Services, Death Records.
*Calculated using death data for California residents only.
Note: Some of the rates displayed in this table are unreliable (see Table 1, page 9).

Cancer Age-Adjusted Death Rates

As shown in **Table 1** (page 9), California's age-adjusted death rate was 173.4 per 100,000 population, which was lower than the 2000 age-adjusted death rate of 175.3. In 2000 and 2001 California did not meet the Healthy People 2010 National Health Objective of reducing the number of cancer deaths to an age-adjusted rate of no more than 159.9 per 100,000 population.[2,3,5,7]

Figure 4 (page 5) shows age-adjusted cancer death rates among California residents by race/ethnicity and sex. In 2001 the age-adjusted death rate among males in California was significantly greater than the rate for females. The male age-adjusted death rate of 205.3 was 1.3 times greater than the female rate of 152.4.

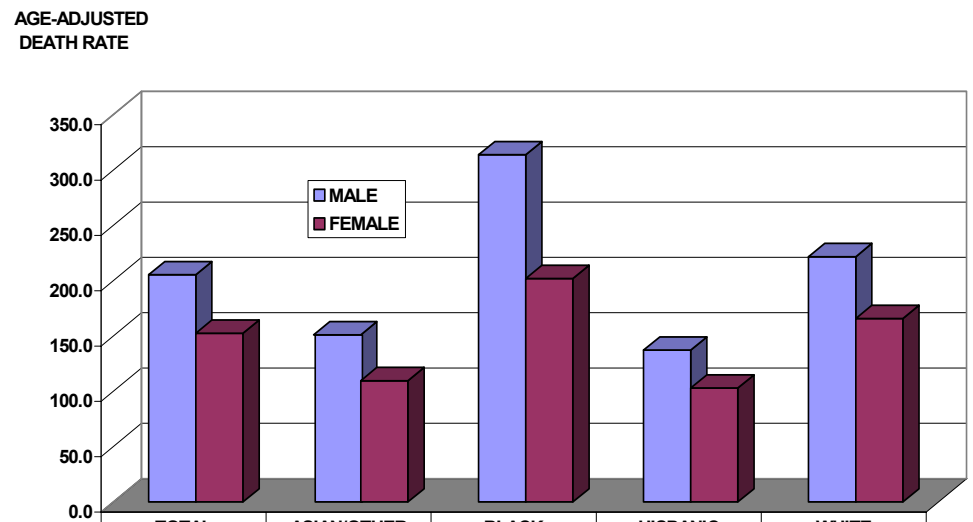
Among the major race/ethnic groups, Blacks had the highest age-adjusted death rate (245.5 deaths per 100,000 population), followed by Whites (187.6), Asian/Other (127.5), and Hispanics (116.5). Similar patterns also occurred among males and females. Black males had the highest age-adjusted death rate (313.8), followed by White males (221.6), Asian/Other males (150.9), and Hispanic males (137.2). Among females, Blacks had the highest rate (201.8), followed by Whites (165.7), Asian/Other (109.5), and Hispanics (102.9). The differences among males and females within the major race/ethnic groups were statistically significant.

---

[7] Klein RJ, Schoenborn, CA. Healthy People 2010 Statistical Notes: Age Adjustment using the 2000 Projected U.S. Population. National Center for Health Statistics, DHHS Publication, No. 20, January 2001.

You can read more about crude and age-adjusted death rates on the National Center for Health Statistics Web site at www.cdc.gov/nchs

FIGURE 4
CANCER AGE-ADJUSTED DEATH RATES
BY SEX AND RACE/ETHNICITY*
CALIFORNIA, 2001



	TOTAL	ASIAN/OTHER	BLACK	HISPANIC	WHITE
MALE	205.3	150.9	313.8	137.2	221.6
FEMALE	152.4	109.5	201.8	102.9	165.7

Source: State of California, Department of Health Services, Death Records.
*Calculated using death data for California residents only.

Cancer Death Rates for California Counties

Table 2 (page 10) shows the number of cancer deaths averaged over a three-year period from 1999 to 2001 with crude and age-adjusted death rates for California and its 58 counties.

Los Angeles County had the highest average number of cancer deaths 13,433.0 or 25.2 percent of all cancer deaths in California. San Diego County had the next highest average number of deaths 4,660.7 or 8.8 percent and Orange County followed with 4,033.3 or 7.6 percent.

Among the 54 counties with reliable crude death rates, Plumas County had the highest rate, 292.5 deaths per 100,000 population, a rate 2.6 times higher than the lowest rate of 110.5 in Kings County. Yuba County had the highest reliable age-adjusted death rate (233.0) and Lassen County had the lowest rate (134.1).

Cancer Deaths among the Three City Health Jurisdictions

Table 3 (page 6) shows the three-year average (1999 to 2001) number of cancer deaths and crude death rates for California's three city health jurisdictions.

Age-adjusted death rates were not calculated for city health jurisdictions because city population data by age are not available.

For more data, see DHS Center for Health Statistics, Home Page at www.dhs.ca.gov/org/hisp/chs/chsindex.htm

Long Beach had the highest average number of deaths (660.3), followed by Pasadena (265.0), and Berkeley (152.3). The crude death rates were 198.4 per 100,000 population for Pasadena, 148.6 for Berkeley, and 143.6 for Long Beach.

TABLE 3
CANCER DEATHS
AMONG THE CITY HEALTH JURISDICTIONS*
CALIFORNIA, 1999-2001

CITY HEALTH JURISDICTION	AVERAGE NUMBER OF DEATHS	2000 POPULATION	CRUDE DEATH RATE
BERKELEY	152.3	102,500	148.6
LONG BEACH	660.3	459,900	143.6
PASADENA	265.0	133,600	198.4

Note: Rates are per 100,000 population; ICD-10 codes C00-C97.
* Calculated using death data for California residents only.

Source: State of California, Department of Finance, E-4 Historical City/County Population Estimates 1991-2000, with 1990 and 2000 Census Counts, March 2002.
State of California, Department of Health Services, Death Records.

Methodological Approach

The methods used to analyze vital statistics data are important. Analyzing only the number of deaths has its disadvantages and can be misleading because the population at risk is not taken into consideration. Crude death rates show the actual rate of dying in a given population, but because of the differing age compositions of various populations, crude rates do not provide a statistically valid method for comparing geographic areas and/or multiple reporting periods. Age-specific death rates are the number of deaths per 100,000 population in a specific age group and are used along with standard population proportions to develop a weighted average rate. This rate is referred to as an age-adjusted death rate and removes the effect of different age structures of the populations whose rates are being compared. Age-adjusted death rates therefore provide the preferred method for comparing different race/ethnic groups, sexes, and geographic areas and for measuring death rates over time. The year 2000 population standard is used as the basis for age-adjustments in this report.

Data Limitations and Qualifications

The cancer death data presented in this report are based on the vital statistics records with ICD-10 codes C00-C97 as defined by the National Center for Health Statistics.[2] Deaths by place of residence means that the data include only those deaths occurring among residents of California and its counties, regardless of the place of death.

The term “significant” within the text indicates statistically significant based on the difference between two independent rates ($p < .05$).

As with any vital statistics data, caution needs to be exercised when analyzing small numbers, including the rates derived from them. Death rates calculated from a small number of deaths and/or population tend to be unreliable and subject to significant variation from one year to the next. To assist the reader, 95 percent confidence intervals are provided in the data tables as a tool for measuring the reliability of death rates. Rates with a relative standard error (coefficient of variation) greater than or equal to 23 percent are indicated with an asterisk (*).

Beginning in 1999 cause of death is reported using ICD-10.[8] Cause of death for 1979 through 1998 was coded using the International Classification of Diseases, Ninth Revision (ICD-9). Depending on the specific cause of death, the number of deaths and death rates are not comparable between ICD-9 and ICD-10. Therefore, our analyses do not combine both ICD-9 and ICD-10 data.

The four race/ethnic groups presented in the table are mutually exclusive. White, Black, and Asian/Other exclude Hispanic ethnicity, while Hispanic includes any race/ethnic group. In order to remain consistent with the population data obtained from the Department of Finance, the "White race/ethnic group" includes: White, Other (specified), Not Stated, and Unknown, and "Asian/Other race/ethnic group" includes: Aleut, American Indian, Asian Indian, Asian (specified/unspecified), Cambodian, Chinese, Eskimo, Filipino, Guamanian, Hawaiian, Hmong, Japanese, Korean, Laotian, Other Pacific Islander, Samoan, Thai, and Vietnamese. In addition, caution should be exercised in the interpretation of mortality data by race/ethnicity. Misclassification of race/ethnicity on the death certificate may contribute to death rates that may be underestimated among Hispanics and Asian/Other.[9]

Beginning in 2000, federal race/ethnicity reporting guidelines changed to allow the reporting of up to three races on death certificates. The race/ethnic groups in this report were tabulated based on the first listed race on those certificates where more than one race was listed. Race groups for 2000 and later years are therefore not strictly compatible with prior years and trends should be viewed with caution.

Effective with 1999 mortality data, the standard population for calculating age-adjustments was changed from the 1940 population standard to the year 2000 population standard in accordance with new statistical policy implemented by the National Center for Health Statistics. The new population standard affects measurement of mortality trends and group comparisons. Of particular note are the effects on race comparison of mortality.[10] Age-adjusted rates presented in this report are not comparable to rates calculated with different population standards.

In addition, the population data used to calculate the crude rates in **Table 3** (page 6) differ from the population data used to calculate the crude rates in **Table 2** (page 10). Consequently, caution should be exercised when comparing the crude rates among the three city health jurisdictions with the rates among the 58 California counties. Age-adjusted rates for city health jurisdictions were not calculated.

For a more complete explanation of the age-adjustment methodology used in this report, see the "Healthy People 2010 Statistical Notes" publication.[7] Detailed information on data quality and limitations is presented in the appendix of the annual

---

[8] **World Health Organization. International Statistical Classification of Diseases and Related Health Problems. Tenth Revision. Geneva: World Health Organization, 1992.**

[9] **Rosenberg HM, et al. Quality of Death Rates by Race and Hispanic Origin: A Summary of Current Research, 1999. Vital and Health Statistics, Series 2, No. 128, National Center for Health Statistics, DHHS Pub. No. (PHS) 99-1328, September 1999.**

[10] **Anderson RN, Rosenberg HM. Age Standardization of Death Rates: Implementation of the Year 2000 Standard. National Vital Statistics Reports; Vol 47, No. 3. Hyattsville, Maryland: National Center for Health Statistics, 1998.**

report, "Vital Statistics of California."[11] Formulas used to calculate death rates are included in the technical notes of the "County Health Status Profiles" report.[12]

This Data Summary was prepared by Cheryl Wilson, Center for Health Statistics, 1616 Capitol Avenue, Suite 74.165, MS 5103, P.O. Box 997410, Sacramento, CA 95814, telephone (916) 650-6897, fax (916) 650-6889, cwilson@dhs.ca.gov

---

[11] **Riedmiller K, Bindra K. Vital Statistics of California, 1999. Center for Health Statistics, California Department of Health Services, April 2002.**

[12] **Schmidt, C, Wilson C. County Health Status Profiles 2003. Center for Health Statistics, California Department of Health Services, April 2003.**

TABLE 1
DEATHS DUE TO CANCER BY RACE/ETHNICITY, AGE, AND SEX
CALIFORNIA, 2001
(By Place of Residence)

AGE GROUPS	DEATHS			POPULATION			RATES			95% CONFIDENCE LIMITS					
										TOTAL		MALE		FEMALE	
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER
TOTAL															
UNDER 1	10	1	9	560,999	286,873	274,126	1.8 *	0.3 *	3.3 *	0.7	2.9	0.0	1.0	1.1	5.4
1 - 4	71	32	39	2,243,262	1,147,543	1,095,719	3.2	2.8	3.6	2.4	3.9	1.8	3.8	2.4	4.7
5 - 14	153	78	75	5,672,643	2,906,408	2,766,235	2.7	2.7	2.7	2.3	3.1	2.1	3.3	2.1	3.3
15 - 24	216	138	78	4,753,513	2,467,107	2,286,406	4.5	5.6	3.4	3.9	5.2	4.7	6.5	2.7	4.2
25 - 34	485	229	256	4,918,489	2,594,607	2,323,882	9.9	8.8	11.0	9.0	10.7	7.7	10.0	9.7	12.4
35 - 44	1,776	793	983	5,765,426	2,956,340	2,809,086	30.8	26.8	35.0	29.4	32.2	25.0	28.7	32.8	37.2
45 - 54	5,075	2,406	2,669	4,674,074	2,325,619	2,348,455	108.6	103.5	113.6	105.6	111.6	99.3	107.6	109.3	118.0
55 - 64	8,577	4,548	4,029	2,862,622	1,396,328	1,466,294	299.6	325.7	274.8	293.3	306.0	316.2	335.2	266.3	283.3
65 - 74	13,781	7,319	6,462	1,976,584	916,584	1,060,000	697.2	798.5	609.6	685.6	708.9	780.2	816.8	594.8	624.5
75 - 84	16,206	8,302	7,904	1,337,545	547,455	790,090	1,211.6	1,516.5	1,000.4	1,193.0	1,230.3	1,483.9	1,549.1	978.3	1,022.4
85 & OLDER	7,459	3,408	4,051	468,178	149,547	318,631	1,593.2	2,278.9	1,271.4	1,557.0	1,629.4	2,202.4	2,355.4	1,232.2	1,310.5
UNKNOWN	1	1	0												
TOTAL	53,810	27,255	26,555	35,233,335	17,694,411	17,538,924	152.7	154.0	151.4	151.4	154.0	152.2	155.9	149.6	153.2
AGE-ADJUSTED							173.4	205.3	152.4	172.0	174.9	202.8	207.8	150.6	154.3
ASIAN/OTHER															
UNDER 1	1	0	1	69,275	35,440	33,835	1.4 *	0.0 +	3.0 *	0.0	4.3	-	-	0.0	8.7
1 - 4	6	3	3	274,035	140,219	133,816	2.2 *	2.1 *	2.2 *	0.4	3.9	0.0	4.6	0.0	4.8
5 - 14	15	8	7	682,107	351,057	331,050	2.2 *	2.3 *	2.1 *	1.1	3.3	0.7	3.9	0.5	3.7
15 - 24	24	13	11	626,372	320,815	305,557	3.8	4.1 *	3.6 *	2.3	5.4	1.8	6.3	1.5	5.7
25 - 34	60	29	31	663,350	335,748	327,602	9.0	8.6	9.5	6.8	11.3	5.5	11.8	6.1	12.8
35 - 44	217	97	120	709,159	345,299	363,860	30.6	28.1	33.0	26.5	34.7	22.5	33.7	27.1	38.9
45 - 54	559	250	309	596,166	282,159	314,007	93.8	88.6	98.4	86.0	101.5	77.6	99.6	87.4	109.4
55 - 64	765	417	348	334,827	159,091	175,736	228.5	262.1	198.0	212.3	244.7	237.0	287.3	177.2	218.8
65 - 74	1,082	574	508	224,875	99,888	124,987	481.2	574.6	406.4	452.5	509.8	527.6	621.7	371.1	441.8
75 - 84	1,155	628	527	131,980	56,160	75,820	875.1	1,118.2	695.1	824.7	925.6	1,030.8	1,205.7	635.7	754.4
85 & OLDER	446	240	206	41,442	17,481	23,961	1,076.2	1,372.9	859.7	976.3	1,176.1	1,199.2	1,546.6	742.3	977.1
UNKNOWN	0	0	0												
TOTAL	4,330	2,259	2071	4,353,588	2,143,357	2,210,231	99.5	105.4	93.7	96.5	102.4	101.0	109.7	89.7	97.7
AGE-ADJUSTED							127.5	150.9	109.5	123.6	131.3	144.6	157.3	104.7	114.3
BLACK															
UNDER 1	0	0	0	37,075	18,968	18,107	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	6	3	3	148,109	75,817	72,292	4.1 *	4.0 *	4.1 *	0.8	7.3	0.0	8.4	0.0	8.8
5 - 14	10	7	3	413,833	209,845	203,988	2.4 *	3.3 *	1.5 *	0.9	3.9	0.9	5.8	0.0	3.1
15 - 24	7	5	2	364,172	192,652	171,520	1.9 *	2.6 *	1.2 *	0.5	3.3	0.3	4.9	0.0	2.8
25 - 34	38	13	25	344,312	182,447	161,865	11.0	7.1 *	15.4	7.5	14.5	3.3	11.0	9.4	21.5
35 - 44	191	85	106	385,985	188,545	197,440	49.5	45.1	53.7	42.5	56.5	35.5	54.7	43.5	63.9
45 - 54	538	242	296	302,852	142,935	159,917	177.6	169.3	185.1	162.6	192.7	148.0	190.6	164.0	206.2
55 - 64	839	453	386	172,047	79,765	92,282	487.7	567.9	418.3	454.7	520.7	515.6	620.2	376.6	460.0
65 - 74	1,122	626	496	107,106	47,268	59,838	1,047.6	1,324.4	828.9	986.3	1,108.9	1,220.6	1,428.1	756.0	901.9
75 - 84	934	516	418	61,885	23,844	38,041	1,509.3	2,164.1	1,098.8	1,412.5	1,606.0	1,977.3	2,350.8	993.5	1,204.2
85 & OLDER	377	169	208	18,436	5,511	12,925	2,044.9	3,066.6	1,609.3	1,838.5	2,251.3	2,604.2	3,528.9	1,390.6	1,828.0
UNKNOWN	0	0	0												
TOTAL	4,062	2,119	1,943	2,355,812	1,167,597	1,188,215	172.4	181.5	163.5	167.1	177.7	173.8	189.2	156.3	170.8
AGE-ADJUSTED							245.5	313.8	201.8	237.7	253.2	299.6	328.0	192.8	210.9
HISPANIC															
UNDER 1	8	1	7	272,023	139,031	132,992	2.9 *	0.7 *	5.3 *	0.9	5.0	0.0	2.1	1.4	9.2
1 - 4	36	14	22	1,070,328	547,371	522,957	3.4	2.6 *	4.2	2.3	4.5	1.2	3.9	2.4	6.0
5 - 14	74	36	38	2,398,512	1,225,596	1,172,916	3.1	2.9	3.2	2.4	3.8	2.0	3.9	2.2	4.3
15 - 24	105	77	28	1,664,220	861,697	802,523	6.3	8.9	3.5	5.1	7.5	6.9	10.9	2.2	4.8
25 - 34	179	87	92	1,767,279	977,600	789,679	10.1	8.9	11.7	8.6	11.6	7.0	10.8	9.3	14.0
35 - 44	426	176	250	1,701,500	916,547	784,953	25.0	19.2	31.8	22.7	27.4	16.4	22.0	27.9	35.8
45 - 54	843	363	480	1,050,953	536,610	514,343	80.2	67.6	93.3	74.8	85.6	60.7	74.6	85.0	101.7
55 - 64	1,054	538	516	532,881	260,356	272,525	197.8	206.6	189.3	185.9	209.7	189.2	224.1	173.0	205.7
65 - 74	1,567	855	712	331,669	152,519	179,150	472.5	560.6	397.4	449.1	495.9	523.0	598.2	368.2	426.6
75 - 84	1,410	762	648	172,771	71,849	100,922	816.1	1,060.6	642.1	773.5	858.7	985.3	1,135.9	592.6	691.5
85 & OLDER	514	243	271	58,574	19,479	39,095	877.5	1,247.5	693.2	801.7	953.4	1,090.6	1,404.4	610.7	775.7
UNKNOWN	0	0	0												
TOTAL	6,216	3,152	3,064	11,020,710	5,708,655	5,312,055	56.4	55.2	57.7	55.0	57.8	53.3	57.1	55.6	59.7
AGE-ADJUSTED							116.5	137.2	102.9	113.4	119.5	132.0	142.4	99.1	106.7
WHITE															
UNDER 1	1	0	1	182,626	93,434	89,192	0.5 *	0.0 +	1.1 *	0.0	1.6	-	-	0.0	3.3
1 - 4	23	12	11	750,790	384,136	366,654	3.1	3.1 *	3.0 *	1.8	4.3	1.4	4.9	1.2	4.8
5 - 14	54	27	27	2,178,191	1,119,910	1,058,281	2.5	2.4	2.6	1.8	3.1	1.5	3.3	1.6	3.5
15 - 24	80	43	37	2,098,749	1,091,943	1,006,806	3.8	3.9	3.7	3.0	4.6	2.8	5.1	2.5	4.9
25 - 34	208	100	108	2,143,548	1,098,812	1,044,736	9.7	9.1	10.3	8.4	11.0	7.3	10.9	8.4	12.3
35 - 44	942	435	507	2,968,782	1,505,949	1,462,833	31.7	28.9	34.7	29.7	33.8	26.2	31.6	31.6	37.7
45 - 54	3,135	1,551	1,584	2,724,103	1,363,915	1,360,188	115.1	113.7	116.5	111.1	119.1	108.1	119.4	110.7	122.2
55 - 64	5,919	3,140	2,779	1,822,867	897,116	925,751	324.7	350.0	300.2	316.4	333.0	337.8	362.3	289.0	311.3
65 - 74	10,010	5,264	4,746	1,312,934	616,909	696,025	762.4	853.3	681.9	747.5	777.4	830.2	876.3	662.5	701.3
75 - 84	12,707	6,396	6,311	970,909	395,602	575,307	1,308.8	1,616.8	1,097.0	1,286.0	1,331.5	1,577.2	1,656.4	1,069.9	1,124.0
85 & OLDER	6,122	2,756	3,366	349,726	107,076	242,650	1,750.5	2,573.9	1,387.2	1,706.7	1,794.4	2,477.8	2,670.0	1,340.3	1,434.0
UNKNOWN	1	1	0												
TOTAL	39,202	19,725	19,477	17,503,225	8,674,802	8,828,423	224.0	227.4	220.6	221.8	226.2	224.2	230.6	217.5	223.7
AGE-ADJUSTED							187.6	221.6	165.7	185.7	189.4	218.5	224.8	163.4	168.1

Note: ICD-10 Codes C00-C97; rates are per 100,000 population.
Year 2000 U.S. standard population is used for age-adjusted rates.
White, Black, and Asian/Other exclude Hispanic ethnicity.

* Death rate unreliable, relative standard error is greater than or equal to 23 percent.
\+ Standard error indeterminate, death rate based on no (zero) deaths.
\- Confidence limit is not calculated for no (zero) deaths.

The race/ethnic groups on this table were tabulated based on the first listed race on those certificates where more than one race was listed.

Source: State of California, Department of Finance, 2001 Population Projections with Age, Sex and Race/Ethnic Detail, December, 1998.
State of California, Department of Health Services, Death Records.

TABLE 2
DEATHS DUE TO CANCER
CALIFORNIA COUNTIES, 1999-2001
(By Place of Residence)

COUNTY	1999-2001 DEATHS (AVERAGE)	PERCENT	2000 POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
CALIFORNIA	53,231.7	100.0	34,653,395	153.6	176.1	174.6	177.6
ALAMEDA	2,348.0	4.4	1,470,155	159.7	182.1	174.7	189.5
ALPINE	1.7	a	1,239	134.5 *	155.8 *	0.0	393.3
AMADOR	87.0	0.2	34,853	249.6	165.0	129.9	200.1
BUTTE	499.7	0.9	207,158	241.2	187.3	170.5	204.1
CALAVERAS	101.0	0.2	42,041	240.2	166.8	133.8	199.8
COLUSA	36.7	0.1	20,973	174.8	177.7	120.0	235.4
CONTRA COSTA	1,615.7	3.0	931,946	173.4	176.5	167.8	185.1
DEL NORTE	56.3	0.1	31,155	180.8	165.0	121.7	208.4
EL DORADO	299.0	0.6	163,197	183.2	177.1	156.9	197.3
FRESNO	1,161.7	2.2	811,179	143.2	174.8	164.7	184.8
GLENN	58.7	0.1	29,298	200.2	196.4	145.9	247.0
HUMBOLDT	288.3	0.5	128,419	224.5	224.3	198.4	250.2
IMPERIAL	191.0	0.4	154,549	123.6	159.2	136.6	181.8
INYO	47.7	0.1	18,437	258.5	184.1	130.6	237.5
KERN	1,003.0	1.9	677,372	148.1	177.6	166.6	188.6
KINGS	140.0	0.3	126,672	110.5	168.0	140.0	196.1
LAKE	172.7	0.3	60,072	287.4	190.6	161.1	220.1
LASSEN	42.3	0.1	35,959	117.7	134.1	93.7	174.6
LOS ANGELES	13,433.0	25.2	9,838,861	136.5	170.5	167.6	173.4
MADERA	194.0	0.4	126,394	153.5	164.5	141.3	187.6
MARIN	451.3	0.8	248,397	181.7	174.0	157.9	190.1
MARIPOSA	45.0	0.1	16,762	268.5	185.5	130.4	240.7
MENDOCINO	199.7	0.4	90,442	220.8	203.3	175.0	231.6
MERCED	303.0	0.6	215,256	140.8	185.4	164.5	206.3
MODOC	18.0	a	10,481	171.7 *	135.5 *	71.8	199.2
MONO	12.0	a	10,891	110.2 *	130.9 *	54.2	207.6
MONTEREY	553.7	1.0	401,886	137.8	171.2	156.9	185.5
NAPA	294.3	0.6	127,084	231.6	190.1	168.2	212.0
NEVADA	236.0	0.4	97,020	243.2	170.1	148.1	192.1
ORANGE	4,033.3	7.6	2,833,190	142.4	179.8	174.2	185.4
PLACER	509.3	1.0	243,646	209.0	210.6	192.2	228.9
PLUMAS	61.0	0.1	20,852	292.5	200.1	149.1	251.2
RIVERSIDE	2,757.7	5.2	1,570,885	175.5	175.2	168.7	181.8
SACRAMENTO	2,162.3	4.1	1,212,527	178.3	199.5	191.1	207.9
SAN BENITO	67.3	0.1	51,853	129.9	149.9	114.0	185.8
SAN BERNARDINO	2,429.3	4.6	1,727,452	140.6	195.2	187.4	203.0
SAN DIEGO	4,660.7	8.8	2,943,001	158.4	184.5	179.2	189.8
SAN FRANCISCO	1,507.3	2.8	792,049	190.3	161.3	153.1	169.5
SAN JOAQUIN	949.3	1.8	579,712	163.8	181.4	169.8	192.9
SAN LUIS OBISPO	475.7	0.9	254,818	186.7	166.7	151.5	181.8
SAN MATEO	1,259.7	2.4	747,061	168.6	165.3	156.1	174.4
SANTA BARBARA	652.7	1.2	412,071	158.4	163.3	150.8	175.9
SANTA CLARA	2,136.7	4.0	1,763,252	121.2	151.2	144.7	157.7
SANTA CRUZ	348.7	0.7	260,248	134.0	145.4	130.0	160.7
SHASTA	381.3	0.7	175,777	216.9	190.8	171.6	210.0
SIERRA	9.3	a	3,457	270.0 *	186.8 *	64.5	309.0
SISKIYOU	123.3	0.2	45,194	272.9	208.8	171.5	246.2
SOLANO	620.7	1.2	399,841	155.2	201.2	185.1	217.3
SONOMA	932.7	1.8	459,258	203.1	192.5	180.1	205.0
STANISLAUS	753.0	1.4	459,025	164.0	190.6	177.0	204.2
SUTTER	138.7	0.3	82,040	169.0	163.9	136.6	191.3
TEHAMA	155.3	0.3	56,666	274.1	215.1	180.8	249.4
TRINITY	35.0	0.1	13,490	259.5	197.0	131.2	262.7
TULARE	527.7	1.0	379,944	138.9	168.0	153.7	182.4
TUOLUMNE	149.7	0.3	56,125	266.7	201.7	168.9	234.6
VENTURA	1,126.7	2.1	753,820	149.5	174.5	164.2	184.8
YOLO	255.0	0.5	164,010	155.5	193.0	169.3	216.8
YUBA	122.0	0.2	63,983	190.7	233.0	191.6	274.3

Note: ICD-10 codes C00-C97; rates are per 100,000 population.
* Death rate unreliable (relative standard error is greater than or equal to 23 percent.
a Represents a percentage of more than zero but less than 0.05.
Source: State of California, Department of Finance, Race/Ethnic Population Estimates by County with Age and Sex Detail, 1970-2040, December, 1998.
State of California, Department of Health Services, Death Records.